in total proteid in the plasma and the necessity of keeping it at about the same point, causing the withdrawal from the solid tissues of the body, of these proteids, in which they are especially rich.

It seems certain at least that albumin and fibrinogen do not arise in the same way and under the same circumstances, and the probability of the globulins being formed from serum albumin, either in the blood or elsewhere, perhaps by ferment action as Moll has proposed, is heightened by my results.

LITERATURE.

1. Burckhardt. Archiv. f. exp. Pathologie, Bd. xvi. p. 332.
2. Moll. Hofmeister's Beiträge, 1903, Bd. iv. p. 563.
3. Levinsky. Pflüger's Archiv, 1903, Bd. c. p. 611.
4. Vallerstein. Thesis, Strasburg, 1902.

THE INCIDENCE OF GASTRIC AND DUODENAL ULCER IN PHILADELPHIA.

WITH SPECIAL REFERENCE TO THE POST-MORTEM RECORDS OF THE PHILADELPHIA HOSPITAL.

By Albert Philip Francine, A.M., M.D.,

INSTRUCTOR IN MEDICINE, UNIVERSITY OF PENNSYLVANIA; STAFF OF HENRY PHIPPS INSTITUTE; MEDICAL REGISTRAR TO THE PHILADELPHIA HOSPITAL.

The following figures from the analysis of the post-mortem records at Blockley (the Philadelphia Hospital) were undertaken at the request of Dr. Osler for Dr. C. P. Howard's paper on "The Incidence of Gastric Ulcer in America."[1] They were not, however, completed in time to be incorporated in that paper, so that I present them now as an additional side-light on this interesting subject. I entirely agree with Dr. Howard's statement that we cannot base accurate or conservative conclusions on data obtained from clinical observations, and for that reason have confined myself to autopsy records alone. The discrepancies in clinical figures are well illustrated in his paper, where he deals with the subject from that standpoint. To quote him: "The figures from Philadelphia are rather puzzling. The University Hospital returns, kindly furnished me by Dr. James Tyson, give 19 cases out of 3979 admissions, or 0.48 per cent. On the other hand, the Pennsylvania Hospital has a very much smaller percentage—*i. e.*, 0.13. This discrepancy cannot be accounted for by any apparent reason." (Unless one takes into consideration the acknowledged uncertainty of the diagnosis in many instances, and the wide opportunity this offers for clinical error.)

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[1] Medical News, October 8, 1904.

"In Baltimore we meet with similarly anomalous figures. At the Johns Hopkins Hospital there have been only 70 cases of gastric ulcer out of 16,553 medical admissions for a period of about fifteen years. This gives a percentage of 0.42. which is below New York (0.44 per cent.), yet higher than Philadelphia (0.16 per cent.). But in striking contrast are the figures from St. Joseph's Hospital, Baltimore, giving 4 cases out of 3298 medical admissions, or only 0.12 per cent. This, then, gives for Baltimore a percentage of 0.37, very far below New York, and still farther below Montreal (0.92 per cent.), and Boston (1.28 per cent.). These figures are interesting, and, no doubt, in a sense, indicative of the relative frequency of gastric ulcer in the localities specified, but surely lacking in the accuracy of the post-mortem figures given subsequently in the same paper as follows:

CLINICAL PERCENTAGES.

City.	No. medical admissions.	No. gastric ulcers.	Per cent.
Boston,	33,506	432	1.28
Montreal,	20,466	189	0.92
New York,	31,690	138	0.44
Cleveland,	3,427	13	0.38
Baltimore,	19,831	74	0.37
Philadelphia,	43,709	72	0.16
Chicago,	3,930	6	0.15
Denver,	5,040	6	0.12
Total,	161,599	930	0.57

Breslau and Zurich . .	0.66 per ct.
London	0.78 "
Berlin	1.33 "
Edinburgh . . .	2.02 "

AUTOPSY PERCENTAGES.

City.	No. autopsies.	No. gastric ulcers.	Per cent.
San Francisco,	551	13	2.35
Boston,	3,089	57	1.84
New York,	561	8	1.42
Philadelphia,	826	10	1.21
Montreal,	3,158	33	1.04
Cleveland,	433	4	0.92
Baltimore,	2,223	19	0.85
Total,	10,841	144	1.32

London	4.6 per ct.
Europe	8.54 "

The great difference in the total number of autopsies in the several cities strikes me as also being probably a source of fallacy in calculating the absolute and relative frequency of ulcer in the different localities. In some instances, notably in the case of San Francisco, New York, and Cleveland, they seem to me too small in the aggregate to base a fair average upon. All such figures are, however, distinctly valuable, and bear out Dr. Howard's conclusions—*i. e.*, "I. Both clinically and pathologically ulcer is less frequent in America than in London and on the Continent. 2. That both clinically and pathologically ulcer is more common in the northeastern than in the more southern regions of America, with the exception of San Francisco."

Militating against the view expressed above—*i. e.*, of using post-mortem records only, are the opinions of Mayo,[1] who thinks that acute gastric ulcer is by no means as rare as it is usually considered. He says that it must be recognized clinically, for it usually heals, and the treatment is purely medical. "It is altogether probable," he says, "that the vast majority of acute ulcers heal, but a considerable minority fail to do so and constitute a share of the chronic ulcers. A chronic ulcer is frequently, if not usually, chronic from its inception."

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[1] Medical News, April 16, 1904.

If it is true that the "vast majority" of acute ulcers heal, then the objections raised to the results of post-mortem study on this subject by Byron Bramwell should also be mentioned. He thinks that acute ulcers often leave no scars and are not discovered at autopsy, or the scars if present are slight and often overlooked, so that a certain number of ulcers are overlooked in post-mortem statistics. Admitting the likelihood of these fallacies in acute ulceration, I still consider autopsy records the much surer way of computing the absolute and relative frequency of gastric and duodenal ulcers, certainly of the chronic forms.

The generally accepted causes for gastric ulcer are anæmia, hyperchlorhydria, certain occupations like shoe-making and tailoring, mechanical injury, the grinding action of the pyloric end of the stomach (Mayo), chlorosis and menstrual disorders, embolism and thrombosis (Virchow), as in heart disease or continued vomiting, superficial burns, and lastly (and often rather casually mentioned), nephritis and tuberculosis. It will be seen from the statistics below that the great majority of these ulcers (which we must consider as the chronic forms) are associated with some chronic dyscrasic disease, as, for instance, nephritis or tuberculosis.

It will be seen in the accompanying cases that in almost if not quite every instance there was an associated condition (in 0.76 per cent. of the cases nephritis or tuberculosis), to which in some manner we must consider the ulcers, usually multiple, etiologically related. So that I feel these two factors, nephritis and tuberculosis, should be emphasized more emphatically in text-book descriptions of gastric ulcer than is usually done.

In this connection, it would be interesting if we knew more about the relation of the stomach to chronic nephritis. Very little investigation has been done in regard to the perversions of gastric function in this relation, though such perversions are relatively frequent in nephritis. The investigations of Biernacki[1] seem to show that the secretion of gastric juice is in general reduced in all cases of inflammation of the kidney. Occasionally hydrochloric acid was absent, especially in severe cases of nephritis, during the stage of œdema, while it was present in milder cases, in large or small quantities. The secretion of pepsin was reduced, even in mild cases, while the motor power of the stomach was frequently found increased, not only in mild cases, but also in old chronic cases. He thinks that the glandular function is inhibited by toxic metabolic products, and that organic changes take place in the stomach in those cases in which nephritis has persisted for a long time and in which the blood changes are considerable and the nutrition of all the tissues has suffered. It may well be that one of the results of this perversion of function is the chronic gastric ulcer.

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[1] Centralbl. f. klin. Med., 1890, Berliner klin. Wochenschrift, 1891.

Since the time of Cruveilhier[1] (1835), who first recognized this condition, there have been numerous and classical reports upon gastric and duodenal ulcer, both in France and Germany. Rokitansky[2] (1839) and Jaksch[3] (1843) published careful studies in relation to gastric ulcer, while Krauss[4] (1865), Chvostek[5] (1882), and Oppenheimer,[6] (1891) have done the same in relation to duodenal ulcer. Indeed, following Cruveilhier's description, there have been in Europe, particularly Germany, an almost continuous series of experimental studies and reports contributing to our knowledge of these interesting morbid conditions. The foreign literature upon the subject is now enormous.

This has not, however, been the case in America, and accurate figures gleaned from autopsy records, while slowly making their appearance, as in Dr. Howard's valuable paper, are still all too scanty. So that any data, however inconsiderable, should, I feel, be welcome to those interested in scientific medicine.

LIST OF PATIENTS ADMITTED TO MEDICAL DEPARTMENT OF THE PHILADELPHIA HOSPITAL (BLOCKLEY) FROM JANUARY 1, 1893, TO DECEMBER 31, 1902 (INCLUSIVE).

(Vols. 16, 17, 18, 19, 115½, 116.)

Men's Medical Ward,	1893	1524	
" " "	1894	1506	
" " "	1895	1568	
" " "	1896	1475	
" " "	1897	1254	
			7327

(Vols. 116, 126, 127, 128, 133, 152, 153.)

Men's Medical Ward,	1898	1358	
" " "	1899	1399	
" " "	1900	1545	
" " "	1901	2013	
" " "	1902	1809	
			8,124
End of ten years			15,451

(Vols. 124, 125.)

Men's Alcoholic,	1893	517	
" "	1894	460	
" "	1895	396	
" "	1896	497	
" "	1897	515	
			2385

(Vols. 124, 125, 157.)

Men's Alcoholic,	1898	720	
" "	1899	710	
" "	1900	1002	
" "	1901	978	
" "	1902	989	
			4399
End of ten years			6784

(Vol. 120.)

Men's Detention,	1893	369	
" "	1894	338	
" "	1895	395	
" "	1896	363	
" "	1897	368	
			1833

(Vol. 154.)

Men's Detention,	1898	386	
" "	1899	424	
" "	1900	508	
" "	1901	574	
" "	1902	502	
			2394
End of ten years			4227

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[1] Anatomie Pathologique, 1829–1835, vol. i.; Revue médicale, 1838; Arch. gén. de méd., 1855.

[2] Oestreich, Jahrb., 1839.

[3] Prague Vierteljahrsschr., 1843.

[4] Das perforirende Geschwür in Deutsch, Berlin, 1865.

[5] Wien. med. Jahrb., 1883.

[6] Mang. Diss. Wurzburg, 1891.

(Vol. 123.)				(Vol. 155.)			
Men's, Colored,	1893	162		Men's, Colored,	1898	192	
" "	1894	149		" "	1899	183	
" "	1895	193		" "	1900	182	
" "	1896	201		" "	1901	279	
" "	1897	183	888	" "	1902	289	1125
				End of ten years			2013

(Vols. 66, 66½, 106, 113.)				(Vols. 113, 136, 139.)			
Women's Medical,	1893	468		Women's Medical,	1898	562	
" "	1894	562		" "	1899	621	
" "	1895	588		" "	1900	699	
" "	1896	536		" "	1901	734	
" "	1897	475	2629	" "	1902	680	3296
				End of ten years			5925

(Vols. 82, 111.)				(Vol. 139.)			
Women's Detention and Drunk,	1893	313		Women's Detention and Drunk,	1898	424	
" " " "	1894	331		" " " "	1899	436	
" " " "	1895	350		" " " "	1900	558	
" " " "	1896	343		" " " "	1901	553	
" " " "	1897	349	1686	" " " "	1902	606	2577
				End of ten years			4263

Women's, Colored,	1893	56		Women's, Colored,	1898	96	
" "	1894	62		" "	1899	92	
" "	1895	76		" "	1900	101	
" "	1896	83		" "	1901	116	
" "	1897	70	347	" "	1902	127	532
				End of ten years			879

Making a grand total of 39,542 cases in ten years.

Cases of gastric or duodenal ulcer coming to autopsy during this time:

1. (Vol. vi., p. 241.) Ulcer in duodenum, ½ cm. in diameter, with thick white edges; 8 cm. from pylorus; tuberculous ulceration of intestine; male, white, aged thirty-five years.

2. (Vol. vi., p. 244.) Small healed ulcer in stomach over pylorus, with a deposit of pigment, ½ cm. in diameter; interstitial nephritis and fatty heart; male, white, aged thirty-two years.

3. (Vol. vi., p. 262.) Along lesser curvature there are several small superficial ulcers in stomach; tuberculous ulcers in œsophagus and intestines; tuberculosis of both lungs; male, black, aged twenty-three years.

Vol. vi., from January 1, 1893, contains 53 autopsies.

4. (Vol. vii., p. 29.) Stomach shows scars of old ulcers; interstitial nephritis; female, white, aged fifty-five years.

5. (Vol. vii., p. 53.) Stomach shows a few very small ulcers; tuberculosis of lungs and intestines; male, black, aged eleven years.

6. (Vol. vii., p. 108.) Stomach shows not less than a dozen bodies in the mucous membrane resembling tubercles, which have under-

gone ulceration; miliary tuberculosis; male, white, aged thirty-two years.

7. (Vol. vii., p. 183.) Duodenum shows minute swelling and ulceration of solitary glands and at some points hemorrhage; miliary tuberculosis of right lung; parenchymatous nephritis; male, white, aged fifty-three years.

8. (Vol. vii., p. 203.) Cup-shaped ulcer of pyloric end of stomach; chronic parenchymatous nephritis; female, black, aged forty-two years.

9. (Vol. vii., p. 269.) At the pylorus and within the valve there is an ulcer on the lesser curvature and anterior surface about one and one-half inches in diameter; carcinoma of stomach, liver, lymph glands; female, white, aged thirty-seven years.

10. (Vol. vii., p. 270.) Numerous small ulcers in the stomach, toward the pyloric end, and also in the duodenum; hypertrophy and dilatation of heart; male, white, aged sixty-four years.

Vol. vii. contains 286 autopsies.

11. (Vol. viii., p. 60.) About 5 cm. from pylorus and on greater curvature there are some small ulcers about 2 cm. in diameter; miliary tuberculosis; male, black, aged twenty-three years.

12. (Vol. viii., p. 93.) There is an old cicatrix on lesser curvature, midway between œsophageal and cardiac orifices; interstitial nephritis; atheroma; female, white, aged fifty-six years.

13. (Vol. viii., p. 101.) There is a small ulcer in stomach; interstitial nephritis; female, white, aged forty-four years.

14. (Vol. viii., p. 274.) A healed ulcer in posterior wall of stomach, 10 cm. from lesser curvature and 5 cm. above pylorus; scirrhus carcinoma of pylorus; female, white, aged fifty years.

Vol. viii. contains 297 autopsies.

15. (Vol. ix., p. 8.) Stomach contains three small ulcers, round and clear cut; one, 9 mm. in diameter on anterior surface near pylorus, perforating; a similar one at other extremity on median and posterior aspect, and a third on the interior surface, 4 cm. from last one, 11 mm. in diameter; chronic bronchitis; chronic gastritis; male, white, aged fifty-eight years.

16. (Vol. ix., p. 123.) Upon posterior surface of stomach, just above pyloric opening, there is a large perforating ulcer with raised indurated edges; carcinoma of stomach; male, white, aged fifty-four years.

17. (Vol. ix., p. 259.) There are multiple round ulcers in stomach and duodenum; perforating ulcer of duodenum; atelectasis of left lung; male, white, aged twenty-seven years.

18. (Vol. ix., p. 278.) There is a large ulcer in stomach a little behind and below pyloric orifice; interstitial nephritis; male, black, aged fifty-five years.

Vol. ix. contains 297 autopsies.

19. (Vol. x., p. 16.) There are ulcers in stomach varying in size

from a pinhead to a pea; miliary tuberculosis; male, white, aged sixty-three years.

20. (Vol. x., p. 92.) Duodenum is ulcerated; interstitial nephritis; female, white, aged sixty-seven years.

21. (Vol. x., p. 147.) On greater curvature there is a circular ulcer, 1 cm. by ¾ cm.; it is in posterior wall nearer to cardiac than to pyloric end, and is crater-like, with indurated edges; tuberculosis of lungs; chronic nephritis; female, white, aged twenty-seven years.

22. (Vol. x., p. 219.) There is a small, round ulcer, with well-defined margins, in greater curvature of stomach; parenchymatous nephritis; myocarditis and endocarditis; female, black, aged twenty-one years.

Vol. x. contains 311 autopsies.

23. (Vol. xi., p. 144.) On lesser curvature, on anterior aspect of stomach, there is a round ulcer, 1 cm. in diameter, which has nearly perforated; parenchymatous nephritis; gangrene of lungs; male, white, aged twenty-five years.

24. (Vol. xi., p. 286.) There is a small, round, superficial ulcer in stomach; gangrenous stomatitis; diphtheritic gastroenteritis; female, white, aged ten months.

25. (Vol. xi., p. 295). There is a small ulcer in the duodenum; enterocolitis; female, white, aged three years.

Vol. xi. contains 310 autopsies.

26. (Vol xii., p. 55.) Near the cardiac end in relation to the lesser curvature there is an ulcer which measures ½ cm. in diameter, is cup-shaped, with slightly indurated edges; lobar pneumonia; female, black, aged twenty months.

27. (Vol. xii., p. 154.) On anterior surface near pylorus is an ulcer, 2 mm. by 3 mm., with irregular undetermined base; miliary tuberculosis; extensive superficial burns, eight to ten weeks old; chronic parenchymatous nephritis; female, white, aged thirty-eight years.

28. (Vol. xii., p. 176.) In neighborhood of fundus and extending toward greater curvature there are large ulcerations; the largest of these is probably 9 cm. to 10 cm. long and 8 cm. to 10 cm. wide; the ulcers tend to surround the cardiac end; the edges are ulcerated and thickened; tuberculosis of lungs; male, white, aged forty-eight years.

29. (Vol. xii., p. 262.) About 10 cm. from pyloric orifice in greater curvature there is a small, clear-cut ulcer, about 12 mm. in diameter; base clean, edges sharp cut; tuberculosis of lungs; acute nephritis; male, black, aged forty-seven years.

Vol. xii. contains 300 autopsies.

30. (Vol. xiii., p. 10.) On posterior wall about six inches from pylorus is a peptic ulcer about the size of a quarter of a dollar; chronic interstitial nephritis; female, white, aged seventy-six years.

31. (Vol. xiii., p. 19.) Stomach contains a few peptic ulcers of small size; chronic interstitial nephritis; male, white, aged sixty-eight years.

32. (Vol. xiii., p. 151.) Greater curvature shows a series of fine linear ulcerations arranged around œsophageal opening; these ulcers are about 4 mm. to 6 mm. in width; similar small ulcers are found in other parts of stomach; great anæmia; chronic nephritis; female, black, aged sixty-eight years.

33. (Vol. xiii., p. 169.) 6½ cm. from pylorus in anterior wall a large irregular oval ulcer is found, 5 cm. in length, opening in the long axis of the stomach; two more ulcerations, similar in character, but smaller, are noted; fatty degeneration of liver and kidneys; male, white, aged twenty-six years.

34. (Vol xiii., p. 220.) 5 cm. from pylorus is a loss of substance, 1 cm. to 2 cm. in diameter; base of ulcer is smooth; edges ulcerated and sharply cut; arteriosclerosis; chronic nephritis; female, white, aged sixty years.

35. (Vol. xiii., p. 170.) Within 5 cm. of pylorus are four small ulcers, varying from 1 cm. to 2 cm. in diameter, with elevated edges; chronic nephritis; fatty degeneration of liver; female, black, aged fifty years.

36. (Vol. xiii., p. 185.) Pylorus is occupied by pigmented tuberculous ulceration, oval in form, 4 cm. to 5 cm. by 2 cm. in extent; base, granular; tuberculosis; female, white, aged seventy-four years.

37. (Vol. xiii., p. 267.) Along lesser curvature, within 5 cm. of pylorus, is found an area of ulceration, 4 cm. in diameter, borders elevated and indurated; base of ulcer is bile-stained; chronic nephritis; male, white, aged seventy-four years.

Vol. xiii. contains 302 autopsies.

38. (Vol. xiv., p. 1.) Stomach contains a large tuberculous ulcer as big as a quarter of a dollar, not far from pylorus; miliary tuberculosis; male, black, aged thirty-six years.

39. (Vol. xiv., p. 71.) Stomach is the seat of a chronic catarrhal inflammation, with ulceration and thickening of its walls; tuberculosis; chronic nephritis; female, white, aged sixty-one years.

40. (Vol. xiv., p. 234.) There are several small ulcers in stomach, the largest is about 1 cm. in diameter; interstitial nephritis; male, white, aged fifty-five years.

Vol. xiv. contains 300 autopsies.

41. (Vol. xv., p. 129.) There are superficial depressions in the mucous membrane of stomach, which may be healed ulcers; carcinoma of uterus; female, white, aged fifty-seven years.

42. (Vol. xv., p. 213.) About midway between cardia and pylorus are two or three small ulcers, the largest is about 8 mm. in diameter; they are shallow, with irregularly raised margins; miliary tuberculosis; female, white, aged thirty-one years.

Vol. xv. contains 297 autopsies.

Vol. xvi., up to January 1, 1903, contains 77 autopsies. No case of ulcer of either stomach or duodenum to date.

Total number of autopsies in ten years, 2830.

CONCLUSIONS. The following grouping shows the ulcers in relation to their apparent cause. Those in association with:

Chronic Nephritis. (2) 6.244; (4) 7.29; (8) 7.203; (12) 8.93; (13) 8.101; (18) 9.278; (20) 10.92; (22) 10.219; (23) 11.144; (30) 13.10; (31) 13.19; (32) 13.151; (33) 13.169; (34) 13.220; (35) 13.170; (37) 13.267; (40) 14.234. Total, 17; 16 gastric; 1 ((20) 10.92) duodenal.

Tuberculosis, Miliary, or of Lungs. (1) 6.241; (3) 6.262; (5) 7.53; (6) 7.108; (7) 7.183; (11) 8.60; (19) 10.16; (28) 12.176; (29) 12.262; (36) 13.185; (38) 14.1; (42) 15.213. Total, 12; 11 gastric; I (7.183) duodenal.

Both Tuberculosis and Nephritis. (21) 10.147; (27) 12.154; (39) 14.71. Total, 3 gastric.

Chronic Bronchitis. (15) 9.8; gastric.

Pneumonia. (26) 12.55; gastric.

Atelectasis of Lung. (17) 9.259; both gastric and duodenal.

Carcinoma of Stomach or Elsewhere. (9) 7.269; (14) 8.274; (16) 9.123; (41) 15.129; Total, 4; all gastric.

Heart, Fatty. (10) 7.270; both gastric and duodenal.

Enterocolitis in Infants. (24) 10.286; (25) 10.295; both gastric. (Extensive superficial burns, with tuberculosis and nephritis. (27) 12.154. Classified above under Tuberculosis and Nephritis.)

Grand total, 42; total gastric, 38; total duodenal, 2; both gastric and duodenal, 2.

In 20 out of 42 cases, or 47 per cent., the ulcers were multiple. Mayo says that in 20 per cent. of cases more than one ulcer is present. Brinton,[1] in 463 autopsies upon cases with ulcer of the stomach, found 57 with two ulcers, 16 with three or four, 2 with five, and 4 with more than five.

The sexes in the above series were equally divided, there being 21 males and 21 females, and the average age for the males was forty-three years, and for the females the same, a remarkably equal distribution. Welch, in his statistics, found 40 per cent. in males and 60 per cent. in females. The largest number of cases in his series occurred in males between thirty and forty years, and in females between twenty and thirty years, but there was much uniformity in the distribution in relation to the four decades. In my series the greatest number of cases occurred in males, 5, between fifty and sixty years, and in females, 5, between forty and fifty years. Here, too, there was a tolerable uniformity in relation to the four decades. Three of the cases were in infants, ten, twenty, and thirty-six months old, respectively. Dr. Osler mentions a case reported by Goodhart in an infant thirty hours old.

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[1] Ulcer of Stomach, 1837.

It should be borne in mind in relation to these figures that the age given is the age of death and not the age of the incidence of the ulcer, which must be considered as occurring earlier.

In regard to size, Dr. Osler mentions an ulcer 19 cm. by 10 cm., reported by Peabody, as the largest one he knows of. The largest one in my series (No. 28) was 9 cm. to 10 cm. by 8 cm. to 10 cm. The same authority refers to a case reported by Berthold in which there were 34 small ulcers. Similar cases of multiple ulcers are seen in my cases Nos. 10 and 32 above.

It should be remembered in basing conclusions on the above figures that the lame, the halt, and the blind of the city's streets sooner or later find their way to the Philadelphia Hospital and Almshouse, and that it is pre-eminently the house of chronic invalidism and disease.

Dr. Joseph Walsh, late pathologist to the Henry Phipps Institute, tells me that during his term of service (1903) he made autopsies on 52 cases dying of tuberculosis of the lungs, and that in one case there were numerous small superficial ulcers in the stomach. Dr. Rosenberger, who followed him, says that during the year 1904 there were 55 autopsies, and no instance of gastric or duodenal ulceration.

To briefly recapitulate, the total number of medical admissions to the Philadelphia Hospital for ten years from January 1, 1893, to December 31, 1902, inclusive, was 39,542. The total number of autopsies was 2830. The total number of ulcers was 42, of which 2 were purely duodenal.

So that the summary, including the figures given by Dr. Howard for the Pennsylvania and University Hospitals, is as follows:

Hospitals.	Number of autopsies.	Number of gastric ulcers.	Percentage.
Philadelphia Hospital	2830	40	1.41
Pennsylvania "	547	7	1.28
University "	279	3	1.07
Phipps Institute	107	1	0.94
City of Philadelphia	3763	51	3.15

REPORT OF FIFTY CASES OF APPENDICITIS AND FIFTY CASES OF HERNIA WITH REFERENCE TO ALBUMINURIA.

By F. E. Bunts, M.D.,
OF CLEVELAND, OHIO.

In a paper read by Dr. John C. Munro before the American Surgical Association, in 1893, he calls attention to the significance of albumin and casts in surgical patients. It is particularly of interest